

**Please replace the paragraph beginning at page 1, line 8, with the following rewritten paragraph:**

--A magnetic bearing is constituted by the arrangement of, for example, a plurality of coils (electromagnets) around both end portions of a rotor (rotary member). In an ordinary bearing, a rotor is pivotally supported by means of ball bearings or the like. However, in the magnetic bearing, a magnetic field generated by coils is applied to the rotor and an attractive force due to this magnetic field is balanced so that the rotor is supported (or levitated) in a non-contact manner in a constant position in [a] space.--

**Please replace the paragraph beginning at page 1, line 23, with the following rewritten paragraph:**

--In such a system where the rotor is supported by the magnetic bearing and rotated, there are some cases where a gravitational center (or inertia center) of the rotor and a rotary axis of the rotor are not identical to each other. When the rotor is rotated in such a condition, in the rotor, a run-out rotation in synchronism with a rotary cycle of the rotor caused by the misalignment between the gravitational center and the rotary axis is generated. In order to suppress

the run-out rotation, the magnetic bearing generates a brake force in synchronism with the rpm of the rotor. Due to this cyclic brake force, the run-out in synchronism with the rpm of the rotor on the stator side where the magnetic bearing coils are arranged is generated in accordance with the law of action and reaction.--

**Please replace the paragraph beginning at page 2, line 16, with the following rewritten paragraph:**

--For instance, in the case where a turbo molecular pump carrying a magnetic bearing is used in an electronic microscope and so on, one of the more serious problems to be solved is how to control the vibration generated in the turbo molecular pump.--

**Please replace the paragraph beginning at page 2, line 20, with the following rewritten paragraph:**

--Attempts for suppressing the vibration caused by the above-described misalignment between the rotary axis of the rotor and the gravitational center thereof have been made. For instance, Japanese Patent Laid-open No. 259854/1995 discloses a magnetic bearing apparatus as such a magnetic bearing.--